APRIL
1970

45¢

Live Steam

THE MONTHLY MAGAZINE FOR ALL LIVE STEAMERS AND LARGE-SCALE MODEL RAILROADERS

in this issue

Live Steam in Florida

Shop Tips

Construction

Live Steam magazine

APRIL 1970 VOL. 4 NO. 4

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COVER PHOTO

Ed Pruitt emerges from the tunnel through Twin Peaks Mountain and rumbles across the trestle over Pine Tree Hollow on his Flat River & Southern Railroad in North Palm Beach, Florida. Photo by Merrill Green.

SUBSCRIPTIONS: $4.50 per year in U. S. A. and Canada (U. S. Funds), $5.50 per year (U. S. Funds) in other countries.

SUBMISSIONS of material for publication are considered to be made gratis unless the contributor so specifies in his letter.

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PUBLISHED MONTHLY by William C. Fitt, 1285 North Twenty-Seven Road, Cadillac, Michigan 49601. Phone 616 – 775-6296

Address all mail to

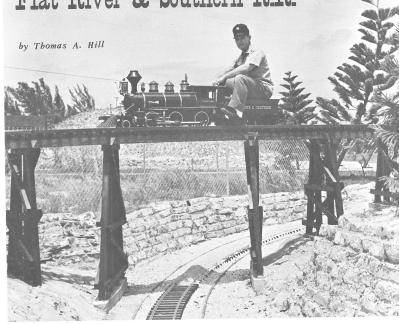
LIVE STEAM
Post Office Box 635
Cadillac, Michigan 49601

SECOND CLASS POSTAGE PAID AT CADILLAC, MICHIGAN

An idea that grew up to be the

Flat River & Southern R.R.

by Thomas A. Hill



Big ideas often die before they become reality – but not so with the Flat River & Southern Railroad in North Palm Beach, Florida. In February 1968, Ed Pruitt decided he wanted to operate an inch-and-a-half scale Live Steam railroad. His interest had begun as a hobby when he tackled, and later set aside, an Atlantic in that scale.

As his idea grew, however, he came to the conclusion that his project would have to include commercial operation if it were to be economically feasible. With this in mind, Ed turned to a model railroading architect nearby and asked him to design a track to fit the one and a quarter acres of land adjoining the bicycle shop he has run for several years.

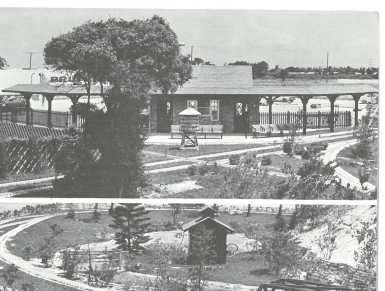
The land was flat and pretty well devoid of features which would provide inspiration for the type of mountain railroad Pruitt's idea envisioned. The future location of the FR&S looked even less inviting when the first plans arrived from the architect . . . they called for two mountain ranges rising more than fifteen feet above the surrounding landscape, a ravine that drops four feet below the ground level and a water system including two lakes, a 300-foot river winding through the property and a 15-foot high waterfall!

Not to be discouraged by these grandiose plans, Ed started marshalling men and equipment for the battle to change a small piece of flat Florida real estate into a Colorado transplant from the turn-of-the-century Denver & Rio Grande.

While the first earth was being moved in Florida, the Winton and Bowlus organizations in California were straining to construct locomotives that would start the FR&S rolling and be the backbone of an ever-growing motive power fleet to serve the railroad-riding public of Florida's Gold Coast region.

Winton Brown at Danville, California, built the Flat River & Southern number 14 – a Mogul (2–6–0) which is the prize piece of operating equipment with its bright red and green cab, stainless steel boiler jacket and gold leaf lettered green tender. This beautiful engine features brakes operated by either air or steam, a steam-driven feed water pump to compliment dual crosshead pumps and a tender hand pump.

With the 2–6–0 handling weekend crowds, the Bowlus diesel number 5406 (a model of Electro-Motive's SW–1200 series switchers) serves as power for a second train on weekends and as the main engine during the week when business is slower.



Authentic trestle-work and background scenery emphasize the stack-talk on 4% grades on the Flat River & Southern Railroad. Complete with station and covered platform at Ruthville plus several types of bridges and trestles across Flat River, the FR&S provides plenty of variety on each trip.

PHOTOS BY MERRILL GREEN

Rolling stock for the FR&S came from a variety of locations around the country. Three wooden passenger-carrying gondolas were purchased from Texas and rebuilt to provide a lower center of gravity (necessary for the high numbers of riders unfamiliar with the wiles of inch-and-a-half operation.) These cars were painted and lettered in the FR&S shops and serve the majority of the time in mainline service. Also purchased for passenger use, but used also for track maintenance are three steel gons from Iowa. Other cars include a bright red caboose and a wooden flat car now used as a fuel car for the Mogul which is fired by propane as required by North Palm Beach city regulations. Recent additions to the FR&S stable are two coaches and a combine for carrying passengers, a second caboose, a low-side gondola and a hand-car along with the EMD SW–600 switcher; all products of Mini-Products of Detroit.

FR&S employee Tom Hill (a transplant from Illinois where he operated 14-inch gauge Wagner engines at Kidieland in Melrose Park) brought with him a Little Engines Pacific which will be added to the motive power roster when completed this spring. With this engine operable, the FR&S promises some double-headed steam operation. Stack talk will drown out all other sounds as these two locomotives climb the 400-foot grade of two to four percent on the branch line of the Flat River operation.

A trip over the FR&S starts at the Ruthville station which also serves as a small railroad museum. From the quaint station, the train passes alongside a waterfall cascading down the side of Crow Mountain and then moves around the back of the mountain to come out on a Howe truss bridge over the Flat River and on past Ruthville station again headed the other way on the middle track. Next comes a two percent grade to Twin Peaks Mountain and a ride through the 70-foot tunnel. Suddenly the train bursts back into daylight as it crosses a curving, six-foot high trestle near Pine Tree Hollow.

As the trip continues, passengers cross a turntable and pass the yards near an old-time three-bay engine-house which provides servicing facilities for all FR&S locomotives. The train switches to a branch line just beyond the enginehouse and drifts downward until it goes beneath the trestle at Twin Peaks Mountain. Then starts the long climb, sometimes at grades of four percent which test the mettle of every steam engineer. This is a battle of man, machine, water and grade very similar to the ones fought so long ago by hoggers in the Colorado Rockies.

The trip over branch line trackage ends just before Rosebud Bend and the passengers are treated to a second climb through the tunnel where they will find, if they listen closely, that the engine is working even harder this time as steam pressure threatens to drop after the long climb. The trip ends back at Ruthville station after a run downhill past the enginehouse and along Northlake Boulevard at the front of the property.

Time and business permitting, the crew members will accompany visitors to the enginehouse where they can view equipment not in service that day. The enginehouse itself is of interest in that it appears to be of scale construction from the outside. Upon entering, however, you find that the floor is set four feet into the ground to permit tracks to enter at table height for easy servicing.

The Flat River & Southern is a big idea that took 18 months to grow into a little railroad. The first of many Live Steam meets is scheduled for April 18th and 19th with others to follow from time to time. An open invitation is made to all Live Steamers (with engines meeting LALS Standards) to operate on FR&S track any time convenient to both parties.

THREAD CUTTING for the apprentice

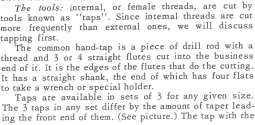
by Jack D. McKenty, M.D.

Internal threads

The tools: internal, or female threads, are cut by tools known as "taps". Since internal threads are cut more frequently than external ones, we will discuss tapping first.

The common hand-tap is a piece of drill rod with a thread and 3 or 4 straight flutes cut into the business end of it. It is the edges of the flutes that do the cutting. It has a straight shank, the end of which has four flats to take a wrench or special holder.

Taps are available in sets of 3 for any given size. The 3 taps in any set differ by the amount of taper leading the front end of them. (See picture.) The tap with the



Taper

Plug

Bottoming

PHOTOS BY
Greenfield Tap and Die Corporation, Greenfield, Mass.

greatest length of taper is known, oddly enough, as a taper-tap. It has the advantage of seating itself best in the hole drilled to receive it, and needing the least guidance. It is also the easiest cutting in thin stock.

The bottoming-tap has the shortest taper and is for cutting threads right to the bottom of blind holes. It is harder cutting, and harder to keep straight when starting.

The plug-tap is the compromise between the other two. It seats itself in holes better than the bottoming, and cuts deeper in blind holes than the taper. For most purposes, the plug-tap is all that is needed. If you order a single tap, and don't specify which kind you want, you will get a plug.

In England, to complicate matters, the three taps are known as taper, second and plug. Their plug is our bottoming, and our plug is their second. Minor point.

Taps are available in both carbon and high-speed steel. H.S. tools last a lot longer, but more taps are broken than are worn out. If a carbon steel tap breaks off in the work, it is possible, when all else fails, to anneal the tap, workpiece and all, and drill out the softened tap. High speed taps won't anneal.

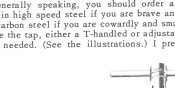
There are many other kinds of taps. "Gun nose taps" have a strange shaped nose on them. When cutting, they push the chips ahead of the tip. They are faster cutting, but they don't work right in blind holes.

"Pulley-taps" are specially long ones for tapping the holes for set-screws in the hubs of pulleys. "Screw machine taps" have a shorter length of thread than hand-taps, and the shanks are reduced in diameter.

There are taps where the flutes form a spiral as in twist drills. These can bridge a keyway or slot in the side of a hole and the straight-fluted taps hang up in keyways. "Fluteless taps" are actually forming tools. Having no flutes, they do no cutting. In soft metal, they push the thread into place.

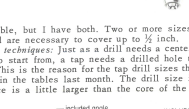
But, generally speaking, you should order a "plug hand tap" in high speed steel if you are brave and careful, or in carbon steel if you are cowardly and smart.

To drive the tap, either a T-handled or adjustable tap wrench is needed. (See the illustrations.) I prefer the



adjustable, but I have both. Two or more sizes of T-handled are necessary to cover up to ½ inch.

The techniques: Just as a drill needs a center punch mark to start from, a tap needs a drilled hole to start from. This is the reason for the tap drill sizes that were listed in the tables last month. The drill size in each instance is a little larger than the core of the thread.


1 inch
0 1 2 3 4 5
included angle
core diam.
outside diam.
depth of thread
pitch = 1 inch / 5 t.p.i. = 0.2 inch
core diameter = o.d. - double depth

INCLUDED ANGLE	
American	60°
Whitworth	55°
M. E.	55°
B. A.	47 ½°
Metric	60°

Portion of Hypothetical Bolt - 5 t.p.i.

This means that the finished threads have blunted tips and what would be the pointed tips have been removed by the tap drill.

The tap drill sizes given provide for a "depth of thread" of approximately 75 to 90%. Beginners often think that a 100% depth of thread would be better. Not so! It is only 5% stronger than a 75% depth of thread, and so much harder to cut that tap breakage goes to disasterous proportions. Many commercial firms settle for 60% depth of thread. This is still strong enough that it is easier to twist the head off a bolt seated in the hole than it is to strip the threads.

In miserable metals, such as stainless and monel, you can use a tap drill one size larger than those given in the tables, and save on taps and sweat.

The tap is screwed into the hole by means of a tap-

wrench, and there you are. It is mandatory to keep the tap in line with the drilled hole; that usually means square with the surface. Going in slaunchwise means a broken tap. With care, you can judge accurately by eye, checking from two directions. The 2" machinist's square can help.

For utmost accuracy, start the tap in the drill press. With the work in the drill press vise, the tapping hole is drilled. Substitute the tap for the drill, apply it to the work, and pull the belt by hand. Do *not* turn on the motor or something will break.

If you can't get at the belt of the drill press, turn the chuck by hand, using the chuck-key as a lever. Then the tap is fairly started take it out of the chuck, and finish the job with the tap-wrench.

Advance the tap one-half to one turn at a time, and then back off a quarter-turn to break the chips. Every few turns screw the tap back out of the work and clean the cuttings out of the flutes with an old toothbrush. And be very, very gentle.

In tougher metals, use the taper until it cuts hard, then use the bottoming tap until it cuts hard, then back to the taper again. For blind holes, finish with the bottoming tap. Clean the cuttings out of the hole before finishing or a little pad of them will prevent you from getting right to the bottom.

It is not necessary always to use the bottoming tap for blind holes. If there is enough metal, drill the tapping hole deep enough and the plug tap will cut a full thread deep enough for an adequate bolt.

The tap will deform the metal as well as cut it. The top thread will be pulled up a little above the surface of the work. Flatten it off with a file, or put in a slight chamfer with the countersink. Or get a slight chamfer on the tapping hole before starting. Or for a real posh job, counterbore the hole two threads deep with the clearance drill (see tables) before starting. This also helps guide the tap.

Brass and cast iron can be tapped dry; other metals need a lubricant or cutting oil. "Rapid Tap" available from Colen, is absolutely wonderful. It speeds up the whole process, is used on all metals, and pays for itself in unbroken taps. I often tap holes in mild steel using a hand drill. Try doing that without it!

A quote from Coles' catalog:

"A tap which breaks off almost invariably breaks near the surface. They are a problem to extract. There are several methods. If the steel may be brought to a red heat and allowed to cool slowly the temper will be taken out of the tap and it may be drilled out. Sometimes with a big hammer, a good punch and main force, the broken tap can be driven out and the hole re-threaded the same or the next larger size. Sometimes the ends of a pair of pliers can be ground to points which will stale into the flutes of the tap and the tap carefully worked out. At times there is no solution to the problem when you will say "too bad" or words to that effect.

"Professor Green, of California, has come up with another solution. He obtained used carbide drills from his dentist. These in a hand grinder, after much grinding, removed the broken tap."

Other possibilities include screwing a nut onto the broken end of the tap and welding it in place. The tap is then screwed out like a bolt. "Tap Extractors" are available but they work only on large taps. The tap can also be burned out with a continuous electric spark, if I ever get around to describing the Electro-Discharge Machine for the home workshop.

I don't wish to dwell on the subject of broken taps, it is too painful. Be very, very gentle.

External Threads

The tools: External, or male threads, are cut by tools known as "dies". The type we use is the "Adjustable Round Split Die" in high speed steel, since it doesn't break. (See the illustration.) The outside diameter of the

dies for threads we use can be either 13/16 or one inch. Other sizes are available but are not recommended. It is best to standardize.

Dies without the split are called "rethreading dies" and are used mostly for freshening up old bolts. Various other kinds are available, including square, hexagon, pipe and acorn, all of which are special purpose.

The dies are held in holders called "die stocks". We need two, one each size. Get the kind with three set screws for adjusting the die. Die stocks are available with an adjustable collar to fit around the rod being threaded and help hold things square. This can be helpful, but it can make it harder when threading to a shoulder. Suit yourself.

A real worthy of special mention is the "Tail-stock Die Holder," available from our advertisers. The most accurate threads are made by a single-point tool in a screw cutting lathe, but the tail-stock die holder is nearly as accurate and a lot faster. There will be more on this when we get to lathe work.

The techniques: Note that the internal thread of the die has a slight taper on it, and is often marked "start from this side." Start from that side. It may help to file a slight taper on the rod being threaded, also.

Once again, the tool must be absolutely square with the work. The forward half a turn, back a quarter technique is used just as with taps, but chip clearing is easier and it is not necessary to screw the die off the work to clean it. "Rapid-Tap" helps on external threads, too.

Problems may arise with the rod being threaded trying to turn in the vise. Clamps should be used on the vise jaws to prevent the work from being marked, and it may be difficult to apply enough pressure to keep the work from turning. This is where the adjusting feature comes in.

When clamping the die in the die stock, tighten the middle set screw first. This spreads the die slighlty, and it takes only a partial cut. Cut the full length of the thread desired; it will be oversize. Back the die off, slack the middle set screw and tighten the two outside ones. Screw it down on the rod again. The second cut will be correct to size, (check it with a nut or in the hole where it is supposed to fit) and will be easier than trying to remove all the metal in one pass.

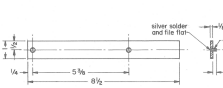
Another problem may arise when cutting a thread right to a shoulder. The start-from-this-side side doesn't cut a complete thread. Turn the die over in the die stock and reapply it for the last few threads. The final chips are not broken off and stick out a little. Some judicious work with a file fixes them. The best answer is the short length of counterbore in the hole where the thread is supposed to fit, as mentioned in tapping.

accessories

building the RARITAN

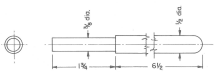
by William H. Morewood

The parts included in this section are straight-forward machining operations and should require no special instructions.



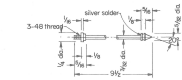
17-1 RUNNING BOARD
Steel - 2 required

17-2 HANDRAIL SUPPORT
Brass - 4 required

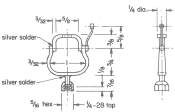


17-5 PUMP HANDLE
C.R. Steel - 1 required

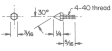
17-6 BELL
Brass - 1 required



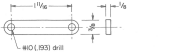
17-3 HANDRAIL
Brass - 2 required



17-5 BELL BRACKET
Brass - 1 required

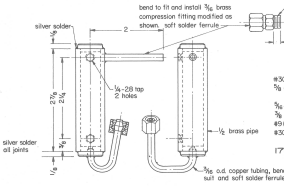


17-7 BELL SCREW
Brass - 1 required

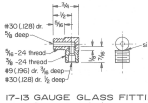


17-4 DRAWBAR
C.R. Steel - 1 req'd.

17-14 DRAWBAR PIN
C.R. Steel - 1 req'd.



17-12 WATER COLUMN
Brass - 1 required



17-13 GAUGE GLASS FITTING
Brass - 1 required

WHW/WCT © WHW 1962

Live Steamers welcome

1970 In Florida

by Enos Yoder

Those who follow the birds south for the winter need not leave their steam behind. Enos Yoder's track in Sarasota, Florida, is a gathering place and on New Year's Day (as is the custom) eighty Live Steamers showed up and had a ball!

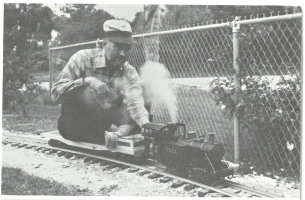
A very nice 2'' scale Case Tractor (below) performed well for its owner, Ray Schisler from Auburndale, Florida, during the day. There were fewer engines operating this year than there usually are but Douglas Peck of Bradenton kept the 3½'' rails shiny with his ¾'' 0-4-0T. (top to bottom)

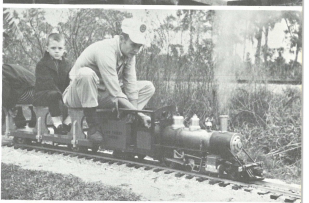
Few people are more ambitious than Mr. and Mrs. Harley Helmuth from Bradenton who displayed the tender and boiler for their 1'' scale Big Boy!

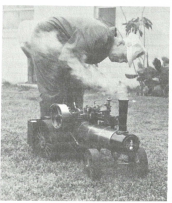
At the other end of the prototype scale is Larry Smith's Maine Two-Footer which operates on 4¾'' track. Added details show that he has continued his work on this little gem since it appeared last year for the first time.

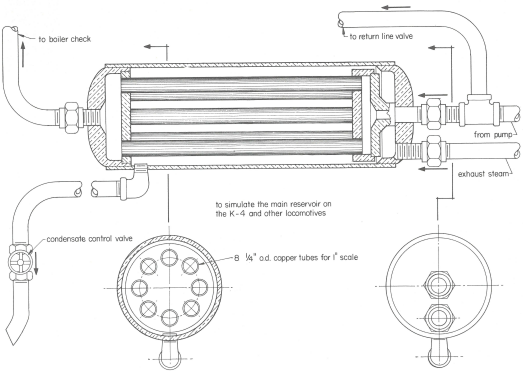
William Yoder with his Dad's 1'' Atlantic on the home track finds that passenger business is good in spite of the fact that they are paralleled by the SCL rails which show in the background.

If you plan to go south next winter, don't forget to pack your ½'' or 1'' engine along with the other shirt and sock. With the arrival of 1971 the Live Steamers will again congregate at railside in Sarasota before making the trip back north!

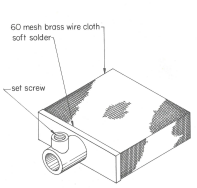


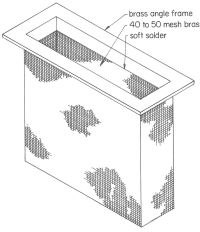





to boiler check
to return line valve
from pump
exhaust steam
to simulate the main reservoir on the K-4 and other locomotives
condensate control valve
8 1/4" o.d. copper tubes for 1" scale

FEED WATER HEATER





STRAINERS

jfh/wt

PLUMBING

SURGE CHAMBERS

These chambers were common on crosshead water pumps to soften the shock of pumping. Since they are really not needed on Live Steam locomotives, they may be made dummy on Early Americans and other locomotives of that period.

O-RINGS

Many Live Steam locomotive builders have had very poor success with O-Rings on their pumps. This is because of lack of understanding of the principle of O-Ring operation. The O-Ring is the most simple device that will hold and/or pump pressures in excess of 3000 PSIG.

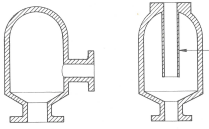
1. One O-Ring will do the job where two O-Rings may leak.
2. O-Rings will absorb some moisture or oil and will stick if extra space isn't allowed for swell.
3. Manufacturers' tables are set up on the basis of maximum pressures, pumping against 120 PSIG boiler pressure is very conservative service.
4. The bore MUST BE SMOOTH to prevent excessive O-Ring wear.
5. The plunger must be a close fit in the bore: .0015" to .0025".
6. O-Ring end play in the groove should be between 1/64" to 1/32".
7. 6° angle of groove side is considered maximum for high pressures; however, an angle of 8° is not unreasonable for Live Steam water pumps.
8. .010" to .015" radial squeeze on the O-Ring should be used.
9. Since the plunger must be lubricated, O-Rings will work with water on one side and lubricating oil on the other side. Buna-N Rubber will work with most liquids as will other compounds used in O-Rings.

STRAINER

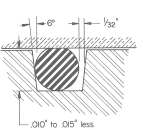
A strainer is a necessity for all tenders to keep trash from entering the tank and eventually getting under the pump valves.

FEED WATER HEATER

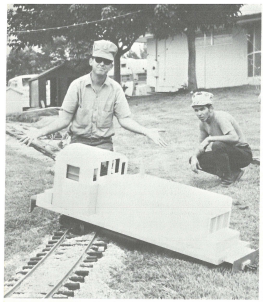
The core and ends of the feed water heater should first be assembled with Sil-Fos or Silver Solder 45. After testing for leaks to 200 PSIG, slide shell into place and sweat with 95–5 soft solder. After assembly has been completed, run hot water through both circuits to neutralize and wash away the flux.



SURGE CHAMBER



O-RING



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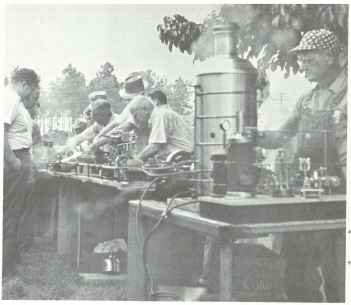

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Live Steam in the NMRA's

Sunshine Region

by Wilfred C. Koster

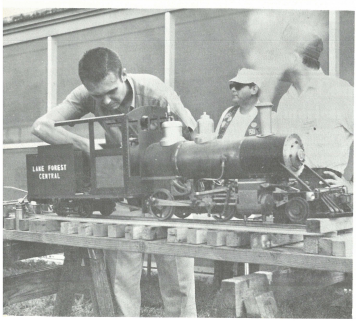
As part of the NMRA's Regional Fall Meet in Homestead, Florida, a Live Steam meet was held on Sunday, October 19th, at Bill Koster's track where approximately 100 attended.

Live Steam locomotives ranged in scale from HO Gauge to 7½" gauge and were supplemented by host Bill Koster's battery-powered 0–4–0 diesel switcher and Coughran's diesel switcher. John threw up his hands in dismay (1) as his engine jumped the track, but John Norcross studied the situation and quickly had the unit rerailed and operating again.

One interesting spot during the meet was the table on which several stationary steam engines were operating (2) from steam supplied by Bob Seelander's vertical boiler.

At one point, Bill's 440-foot track parallels the Seaboard Coast Line's mainline for a distance and during an early steam-up tryout Tom Hill met the SCL's *Homestead Local* (3) with Ed Pruitt's Winton Mogul. During the hours of the meet, though, no trains passed on the 12"–1' size track.

There was no track available for operation of equipment other than 7½"



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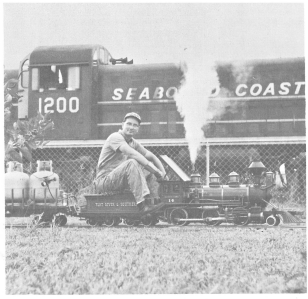
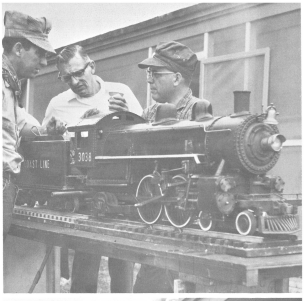




3 4

6

gauge but Enos Yoder's 1" scale Atlantic (4) operated on blocks for the benefit of the visitors. Enos (e) had a good chance to indoctrinate John Coughran (1) in the subject of Live Steam operation! Larry Smith also stoked up his 2–4–4T Maine Two-Footer (5) which operates on 4¾" track. While operation on blocks does leave out some of the romance of steam locomotives, it does help refresh the memories of those model railroaders who must imagine the sound of the exhausts and the smell of coal smoke while operating their electrically-powered equipment.

An important phase of the Live Steam Hobby that is often missing at meets was included this time. A two-passenger steam boat was displayed and its fine points discussed with the group by Dan Post and his First Mate (6).

Three trains kept the mainline busy and everyone had a chance to ride or operate a locomotive. There were also movies shown in Bill's basement and his 25 x 26 foot HO gauge layout was in operation... a grand time was had by all!

NATIONAL BLS MEET DRAWS NEAR!

You will find a coupon on page 13 of this issue which indicates information needed from those planning to attend the Brotherhood of Live Steamers' National Meet in Los Angeles on May 29th, 30th and 31st of this year. There are important reasons why this data is needed such as:

(1) Advance preparation of ribbon badges (Mr. & Mrs. Live Steamer (Kids will get a stick-on badge). Due to the expense there will be a Registration Fee of $1.00 per family and the badges will be a memento of this gala event!
(2) Parking arrangements near the track area for those bringing locomotive or other steam equipment. There will be a big table with a boiler for stationary engines which should have a 1/8" standard pipe thread adapter, either male or female.
(3) Parking provisions for campers, trucks, trailers, tents, etc., and some idea of what to expect will help the planning.

If you decide at the last minute to come to the meet, by all means come along with your engine and gear. LALS will see to it that you are properly cared for and will be happy that you could make it!

West Coast Regional Secretary, Harry Dixon, also reminds you to bring your camera. There will be a million pictures that you will cherish for many years to come.

NJLS MEET DATE CHANGED

In the hope of avoiding the hot weather which often existed during their Spring Meet, the New Jersey Live Steamers have announced that they will advance the date this year to June 5 and 7.

They will continue the policy of admitting only Live Steamers and their families using the registry of last year. They will also recognize members affiliated with any regular Live Steam club, the Brotherhood of Live Steamers and any owners of Live Steam equipment which they bring.

PRICE INCREASE

The prices quoted for several of the books listed in LIVE STEAM Magazine for September and October of 1969 have been increased by the publishers effective March 2nd, 1970. Orders for the following books can be accepted only at these prices: Crookedest Railroad – $4.75; Mixed Train Daily – $10.95; Narrow Gauge in the Rockies – $9.95; Redwood Railways – $6.00; Steamcars to the Comstock – $5.95.

ALTAR BOUND

Nearby motels are listed in the coupon but you should make your reservations early. Previous plans to assist in this matter had to be dropped because of the variety of accommodations, number of people in a family and personal preferences.

For those who are planning to make an extended trip in conjunction with the BLS Meet, Harry lists the following tracks that will be open to visitors after the meet in the West Coast area:

RIVERSIDE LIVE STEAMERS
Robert Babb, President
2225 Northbend Street
Riverside, Calif. 92501
Phone 714 – 683-6153
Francis Smith Secretary
5536 Dewey Avenue
Riverside, Calif. 92504
Phone 714 – 688-9533

MARTIN S. LEWIS MUSEUM
Adjacent to Little Engines shop and Southern California Live Steamers.
Mrs. Irene Lewis
2135 West 250th Street
Lomita, Calif. 90717
Phone 213 – 326-2434

GOLETA VALLEY RAILROAD
June 1st, 2nd and 3rd
Seymour Johnson, President
4748 Viejo Drive
Santa Barbara, Calif. 93105
Phone 805 – 967-2000

GOLDEN GATE LIVE STEAMERS
John Curtiss, President
1807 Beverly Avenue
Belmont, California 94002
Phone 415 – 591-1363
Joe Bryan, Secretary
1225 Scott Street
El Cerrito, Calif. 94530
Phone 415 – 527-2254

PACIFIC NORTHWEST LIVE STEAMERS
Harry Harvey, President
1425 S.E. Flavel Street
Portland, Ore., 97202
Phone 503 – 234-2370

FILM LIBRARY EXPANDS

Richard M. Winkle, President of the Southern Minnesota Live Steamer Association advises that their 16mm film library of steam continues to grow. This club has taken on itself a project to preserve and make available any filming, instruction or promotion film pertaining to railroads and steam in particular.

New additions to the list include six three-hundred foot films on the following subjects:

Cedar Rapids & Iowa City Railway
Waterloo, Cedar Falls & Northern
On the Baltimore & Ohio
On the Canadian National
On the East Broadtop
On the Delaware & Hudson

The last four films were made especially for the club by Kent Eastin.

These films and several others are available to Live Steamers for club functions, meets or get-togethers and further information can be obtained directly from

Richard M. Winkle
220 First Avenue Southwest
Rochester, Minnesota 55901

Jane Neely, who authored the article about the "Battle of the Boiler" in Nebraska (LS 5/69) heads down the 1" track of the Omaha Area Live Steamers in full control of Ron Beckman's 4-6-0-2. In June she will become Mrs. Ronald Beckman. For all Live Steamers we will wish them a long, happy and prosperous life together.

GGLS LOOKS AHEAD

1970 should prove to be a really big year for GGLS since this will mark twenty years for them at their location in Redwood Park, Oakland, and will be the start of their move to bigger and better quarters.

Some five or six years ago it was proposed by Mr. Mott, then Director of the East Bay Regional Park District, that the club move to a location in nearby Tilden Park where they could expand their operation and enjoy other advantages. This was approved by the club membership but it has taken these many years to get things started.

The fall of 1969 saw the grading for the railroad completed. After settling through the winter and installation of proper drainage and fencing, the move should start in the spring of 1970.

Planning has been going on for a long time, but now it is at fever pitch! Under the very able direction of a committee headed by Art Stewart and Jim Vail, order and proper sequence is being brought to these plans. Some projects have already been completed and some materials, such as ties and rail, are at hand.

Jim Bryan reports that with the enthusiasm of the membership and the cooperation of the East Bay Regional Park District (which has been just great!) that they have the potential of having one of the best, if not *the* best, miniature railroads in the world!

Scheduled Meets

April

10 **MID-SOUTH LIVE STEAMERS**
11 7½" gauge, LALS Standards
12 Austin F. Barr, Jr., track
Junction of Highways 1 and
214 at Winnfield
Route 2
Harrisburg, Arkansas 72432

18 **FLORIDA LIVE STEAM MEET**
19 7½" Gauge, LALS Standards
E. J. Pruitt
501 Northlake Boulevard
North Palm Beach, Florida

May

15 **PIONEER VALLEY LIVE STEAMERS**
17 Brenton W. Barnfather, Secy.
3 Fleetwood Drive
Sandy Hook, Conn. 06482

29 **BLS NATIONAL MEET**
30 Los Angeles Live Steamers
31 Griffith Park
3½" – 4¼" – 7½" gauges
Joel Corbin, Secretary
12723 Kittridge Street
North Hollywood, CA 91606

29 **PENNSYLVANIA LIVE**
30 **STEAMERS**
31 2½" – 3½" – 4¼"
William H. Scott, Secy.
R. D. 1, Box 400
Sellersville, Pa. 18960

June

5 **NEW JERSEY LIVE**
6 **STEAMERS**
7 Advance registration required
2½" – 4¼" – 7½"
Ralph W. Green, Secy.
845 Kilsyth Road
Elizabeth, N. J. 07208
Phone 201 – 353-4424

6 **IOWA MODEL STEAM**
7 **ENGINEERS**
3½" – 4¼" – 7½" gauges
Pershing G. Scott
R.R.D.
Marion, Iowa 52302

13 **GOLDEN GATE LIVE STEAMERS**
14 2½" – 3½" – 4¼" – 7½"
Joe Bryan, Secretary
1225 Scott Street
ElCerrito, California 94530

September

5 **PENNSYLVANIA LIVE STEAMERS**
6 2½" – 3½" – 4¼"
7 William H. Scott, Secretary
R. D. 1, Box 400
Sellersville, Pa. 18960

12 **IOWA MODEL STEAM**
13 **ENGINEERS** (tent)
3½" – 4¼" – 7½"
Pershing G. Scott
R.R.D.
Marion, Iowa 52302

12 **GOLDEN GATE LIVE STEAMERS**
13 2½" – 3½" – 4¼" – 7½"
Joe Bryan, Secretary
1225 Scott Street
ElCerrito, California 94530

18 **NEW JERSEY LIVE STEAMERS**
19 Advance registration required
20 2½" – 4¼" – 7½"
Ralph W. Green, Secretary
845 Kilsyth Road
Elizabeth, N. J. 07208
Phone 201 – 353-4424

October

9 **PIONEER VALLEY LIVE**
10 **STEAMERS**
11 3½" – 4¼" – 7½"
Brenton W. Barnfather, Secretary
3 Fleetwood Drive
Sandy Hook, Conn. 06482

Regular Run Days

GOLDEN GATE LIVE STEAMERS
Every Sunday weather permitting
2½" – 3½" – 4¼" – 7½"
Joe Bryan, Secretary
1225 Scott Street
ElCerrito, California 94530

JAMUL VALLEY RAILROAD
3rd Sunday each month
7½" gauge
Harry F. Haas
Route 1, Box 47 A
Jamul, California 92035

LOS ANGELES LIVE STEAMERS
1st Sunday each month
3½" – 4¼" – 7½"
Joel Corbin, Secretary
12723 Kittridge Street
North Hollywood, Calif. 91606

MONTREAL LIVE STEAMERS
1st Sunday of each month
2½" – 4¼" – 7½" gauges
S. H. Galloway, Secretary
53 Brentwood Road
Beaurepaire, Quebec, Canada

NEW JERSEY LIVE STEAMERS
Every Sunday, except October
3½" – 4¼" – 7½"
Ralph W. Green, Secretary
845 Kilsyth Road
Elizabeth, N. J. 07208
Phone 201 – 353-4424

PENNSYLVANIA LIVE STEAMERS
Apr. 19, May 3, June 14, July 12 &
26, Aug. 9, Sept. 6, Oct. 4 & 18
William H. Scott, Secy.
R. D. 1, Box 400
Sellersville, Pa. 18960

PIONEER VALLEY LIVE
STEAMERS
2nd Sunday each month
3½" – 4¼" – 7½"
Brenton W. Barnfather, Secretary
3 Fleetwood Drive
Sandy Hook, Conn. 06482

RAILROADERS CLUB OF
SAN ANTONIO
3rd Sunday each month,
weather permitting
7½" gauge
Cass Beck
2626 McCullough Avenue
San Antonio, Texas 78212

RIVERSIDE LIVE STEAMERS
4th Saturday-Sunday each month
Hunter Park-Corner & Columbia
Streets
Riverside, California
Francis H. Smith, Secretary
5536 Dewey Avenue
Riverside, California 92504
Phone 688-9533 or 683-9628

SOUTHERN CALIFORNIA LIVE
STEAM CLUB
3rd Sunday each month
7½" gauge
R. G. Kepner, Secretary
2764 Maple
Rialto, California 92376

WABASH, PRISCO & PACIFIC
Every Sunday
12" gauge
Grand and First Streets
0.4 miles south of Post Office
Glencoe, Missouri

NATIONAL BLS MEET

(If you plan to attend the BROTHERHOOD OF LIVE STEAMERS' Meet in Los Angeles on May 29, 30 and 31, please fill in this coupon or send the requested information to

JOEL CORBIN
12723 Kittridge Street
North Hollywood, California 91606

NAME

ADDRESS

CITY STATE ZIP

Number in party

Dates attending: May 29 ☐ 30 ☐ 31 ☐

Number and type of equipment that you will bring to meet:

Locomotives: Gauge: 7½" 4¼" 3½"

Traction: Stationary:

Other (please list):

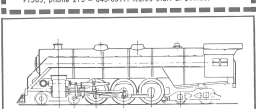
Will you have a static display? Yes ☐ No ☐

Will your display require a table? Yes ☐ No ☐

Approximate dimensions and weight of display:

If you wish to reserve a camper or trailer space, please give the type and approximate dimensions of vehicle.

Make motel reservations early. Following have TV, Phone, Air Conditioning, AAA Approved, credit cards honored. Please contact them direct.
STARLITE MOTEL, 3200 W. Olive Ave., Burbank, Calif. 91505, phone 213 – 848-4407. Rates start at $8.00.
HOLIDAY MOTEL, 2901 Riverside Drive, Burbank, Calif. 91505, phone 213 – 843-1121. Rates start at $10.00.
TOLUCAN MOTEL, 3910 Riverside Drive, Burbank, Calif. 91505, phone 213 – 845-8517. Rates start at $11.00.



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Cadillac, Michigan 49601

mail stop

D&RGW NEEDS US

All Live Steamers should heed the following editorial which appeared in the *Littleton Independent* on February 19th, 1970, in which editor Garrett Ray points out:

Maybe the sky will not fall in if the Alamosa Narrow gauge railroad is not saved. Maybe it isn't an issue with the importance of the war in Vietnam, or riots in the cities.

But can you remember lying awake on a still night and hearing the long whistle and rumble of the 9:40 freight? Have you ridden the jaunty, crowded little trains which make the Animas River run to Silverton? Do you wish that somehow, in a world of plastic and chrome, your children could share some of the good things that were part of your life, but which "progress" has cast aside?

Then maybe you're one of the Littletonites who ought to be concerned about the fate of the narrow gauge track which runs from Alamosa to Durango through 200 miles of spectacular Colorado and New Mexico scenery.

The Colorado legislature has put up $295,000 to help buy the most spectacular portion of the line, and the New Mexico legislature is expected to provide an equal amount. Whether the plan succeeds or not — there's an April 1st deadline — depends on whether more money can be raised from public contributions. Littleton Senator Hugh Fowler is coordinating the public fund drive. Anyone sending $10 to the Colorado Society for the Preservation of the Narrow Gauge, Box 2000, Englewood, Colorado, will get a certificate recognizing his contribution. More important contributors will know that they have helped preserve a piece of Western America's most colorful heritage.

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737 WEST DAVIES WAY
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Companion Text
to American Locomotive Engineering

The long-awaited Companion Text to the previously published book, American Locomotive Engineering by G. Weissenborn has been received. Originally published in 1871, it furnishes steam locomotive design, engineering and drafting data for equipment of that period. It describes in detail the 96 exquisite drawings reproduced in the earlier volume in addition to a wealth of engineering material.

228 pages, 9 x 12" $11.50

American Locomotive Engineering, a collection of 96 fine engravings of 0–6–0, 2–4–2, 2–6–0, 2–8–0, 4–2–4 and 4–4–0 locomotives. Beautifully shaded elevation drawings as well as fully dimensioned working drawings. *Still Available!*

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Order directly from

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The Extra Board

Fifteen words or less not including name or address: $2.00 in advance, 10¢ per word for additional copy. No commercial ads of any kind accepted for this column.

WANTED

7½" Gauge diesel chassis only or drive parts or whatever. All letters answered. Joseph Baebi, 100 45th St., Maplewood, NJ 07040

Old electric and wind-up trains, also quality scale "O" gauge. Top cash. Al Stauter, Route 4, Medina, Ohio 44256.

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NOTICE
Receipt of many new drawings makes old list obsolete. Watch for NEW ENLARGED CATALOG in these ads shortly.

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890 Bay Ave., Bathurst, N.B., Canada

NEW PATTERN LIST NO. 7
¾" – 1" – 1½" scale locomotives and horizontal stationary engine. Send 25¢ with self-addressed #10 envelope with 12¢ postage to

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962 Greenland, Portsmouth, N. H., 03801

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1966–1967 issues – 35¢ each
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